



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,558	02/09/2004	Leonard L. Diaddario JR.	PVOZ 2 00016	8970

27885 7590 08/29/2006

FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 SUPERIOR AVENUE, SEVENTH FLOOR
CLEVELAND, OH 44114

EXAMINER

WONG, EDNA

ART UNIT	PAPER NUMBER
----------	--------------

1753

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,558

Applicant(s)

DIADDARIO, LEONARD L.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This is in response to the Amendment dated July 19, 2006. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Specification

I. The abstract of the disclosure has been objected to because the word "or" should be amended to the word -- of -- in line 5.

The objection of the abstract of the disclosure has been withdrawn in view of Applicant's amendment.

II. The disclosure has been objected to because of minor informalities.

The objection of the disclosure has been withdrawn in view of Applicant's amendment.

Claim Objections

Claims 1 and 4-8 have been objected to because of minor informalities.

The objection of claims 1 and 4-8 has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 112

I. Claims **1-3 and 5-10** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 1-3 and 5-10 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicant's amendment.

II. Claims **1-3** have been rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the step of electrodepositing the nickel or nickel alloy on the substrate.

The rejection of claims 1-3 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 102

I. Claims **4 and 10** have been rejected under 35 U.S.C. 102(b) as being anticipated by **Ostrow et al.** (US Patent No. 3,133,006).

The rejection of claims 4 and 10 under 35 U.S.C. 102(b) as being anticipated by Ostrow et al. has been withdrawn in view of Applicant's amendment.

II. Claim **5** has been rejected under 35 U.S.C. 102(b) as being anticipated by

Art Unit: 1753

Ostrow et al. (US Patent No. 3,133,006).

The rejection of claim 5 under 35 U.S.C. 102(b) as being anticipated by Ostrow et al. has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 103

I. Claims 1-3 have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ostrow et al.** (US Patent No. 3,133,006) in combination with **Lowenheim** (Electroplating, c. 1978, pp. 205-220).

The rejection of claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Ostrow et al. in combination with Lowenheim has been withdrawn in view of Applicant's amendment.

II. Claim 6 has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ostrow et al.** (US Patent No. 3,133,006) in combination with **Lowenheim** (Electroplating, c. 1978, pp. 205-220).

The rejection of claim 6 under 35 U.S.C. 103(a) as being unpatentable over Ostrow et al. in combination with Lowenheim has been withdrawn in view of Applicant's amendment.

III. Claim 7 has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ostrow et al.** (US Patent No. 3,133,006) in combination with **Lowenheim**

(Electroplating, c. 1978, pp. 205-220).

The rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over Ostrow et al. in combination with Lowenheim has been withdrawn in view of Applicant's amendment.

VI. Claims 8 and 9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ostrow et al.** (US Patent No. 3,133,006) in combination with **Lowenheim** (Electroplating, c. 1978, pp. 205-220).

The rejection of claims 8 and 9 under 35 U.S.C. 103(a) as being unpatentable over Ostrow et al. in combination with Lowenheim has been withdrawn in view of Applicant's amendment.

Response to Amendment

Claim Objections

Claims 12-13 and 18-19 are objected to because of the following informalities:

Claim 12

line 2, the word "diallyalmine" should be amended to the word -- diallylamine --.

Claim 13

line 2, the word "triaallylamine" should be amended to the word -- triallylamine --.

Art Unit: 1753

Claim 18

line 2, the word "diallylmine" should be amended to the word -- diallylamine --.

Claim 19

line 2, the word "triaallylamine" should be amended to the word -- triallylamine --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

line 6, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Claim 4

line 6, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Claim 5

line 7, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Art Unit: 1753

Claim 6

line 7, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Claim 7

line 8, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Claim 8

line 9, the definition of "n" in formula $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$ is missing.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-3, 11 and 18-20 define over the prior art of record because the prior art does not teach or suggest a process for the electrodeposition of a nickel or nickel-alloy coating on a substrate, the process comprising the steps of immersing and electrodepositing as presently claimed, esp., wherein the bath comprises an additive having the general formula:

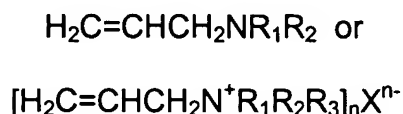


wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is

Art Unit: 1753

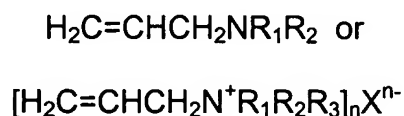
an n-valent inorganic or organic anion.

Claims 4, 10 and 12-17 define over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions and (b) an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 5 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) at least one Class I brightener, and (c) an additive having the general formula:

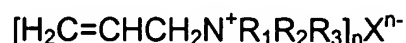


wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 6 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel

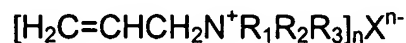
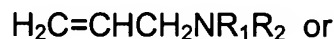
Art Unit: 1753

alloy deposit on a substrate comprising: (a) nickel ions, (b) at least one Class II brightener, and (c) an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 7 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposition a substrate comprising: (a) nickel ions, (b) at least one Class I brightener, (c) at least one Class II brightener, and (d) an additive having the general formula:

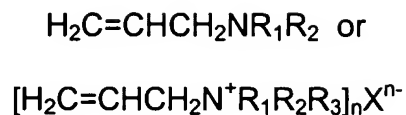


wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 8 is allowable over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) alloying metal ions, (c) at least one Class I brightener, (d) at least one Class II brightener, and (e) an additive

Art Unit: 1753

having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

The prior art does not contain any language that teaches or suggests the above. Ostrow teaches diallyl propargyl amine and triallyl propargyl amine. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

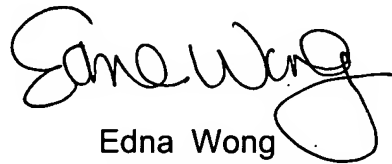
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1753

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edna Wong
Primary Examiner
Art Unit 1753

EW
August 20, 2006